

REMARKS

The Office Action dated November 21, 2003, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

As a preliminary matter, Applicants thank Examiner Lonsberry and Primary Examiner Srivastava for conducting a personal interview with the undersigned on August 28, 2004. During the interview, Applicants presented arguments that distinguished the present invention from the cited prior art of Kikuchi (U.S. Patent No. 6,227,973, "Kikuchi"), and provided rebuttal arguments concerning Examiner's reading of Kikuchi on the claimed invention. The following remarks are submitted as a full and complete response to the outstanding Office Action, and also set forth the summary of the personal interview, as requested by the Examiners.

Claims 2 and 4 have been amended. Applicants submit that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 1-8 are pending in the present application and are respectfully submitted for consideration.

Claims 2 and 4 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification. Applicants respectfully traverse this rejection.

It is submitted that although the phrase "bus masters" is not specifically used in the specification of the present application, Applicants submit that the subject matter related thereto is fully disclosed and supported in the disclosure of the present

application. Specifically, Figure 12 of the originally filed drawings, shows at least four functional blocks of CPU 93, Graphics processor 94, sound processor 95 and DMA controller 99b that output signals to the "first address bus & R/W signal" element of Figure 12, and also output signals to the "second address bus & R/W signal" element of Figure 12, as clearly indicated from the directions of the arrow marks applied to the connection lines. Therefore, Applicants submit that these functional blocks are bus masters each outputting an address signal to the common bus, which supports the claimed subject matter recited in claims 2 and 4. Accordingly, Applicants respectfully submit that the amendments made to claims 2 and 4 overcome the formal rejection noted in the Office Action, and are in compliance with U.S. patent practice.

Claims 1-4 and 7-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kikuchi. Applicants respectfully submit that each of claims 1-4 and 7-8 recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 1 recites an information processing apparatus for outputting video and audio signals to a home TV set, having a man-machine interface, a semiconductor memory and an information processor. The man-machine interface converts into an electrical signal one or plurality of urging force, movement in a space, sound information that are given by a human to said man-machine interface. The semiconductor memory stores software for driving said information processor, and the software being configured by an operating system, an information processor hardware driver, a man-machine interface driver, an application software engine and application software contents portions. The operating system administers at least state control of all the

tasks included in the present software, task scheduling, shared resource control between tasks, and interrupt control, and the information processor hardware driver being to efficiently handle hardware resource in said information processor and configured by a driver program and driver data. Furthermore, the driver program includes totally one or more tasks and subroutines, and is to be utilized in function according to task execution or a subroutine call from said application software engine. The driver data is a set of data to be handled by said driver program, and the man-machine interface driver is to efficiently deliver said electrical signal from said man-machine interface to said application software engine, and including totally one or more tasks and subroutines, and to be utilized in function according to task execution of a subroutine call from said application software engine. The application software engine is to perform a process relied upon an application kind among regular processes required by said application software contents portion and including totally one or more tasks and subroutines, and utilized in function task execution or subroutine call from an application software contents program. The application software contents portion is configured by an application software contents program and application software contents data, and the application software contents is a program code for a particular process to achieve an objective of said present information processing apparatus and including one or more tasks. Furthermore, the application software contents data is a set of data to be handled by said application software contents program or said application software engine, and the information processor is to perform an operation process based on an electrical signal from said man-machine interface and software

stored in said semiconductor memory, and produce image information and sound information.

Claim 3 recites an information processing apparatus for outputting video and audio signals to a home TV set, including a man-machine interface, a semiconductor memory and an information processor. The man-machine interface converts into an electrical signal one or a plurality of urging force, in-space movement, sound information that are given by a human to said present man-machine interface, and the semiconductor memory stores software for driving said information processor. The software is configured by an operating system, an information processor hardware driver, a man-machine interface driver, a script language interpreter and an application software contents portion, and the operating system administers at least status control of all the tasks included in the present software, task scheduling, shared resource control between tasks, and interrupt control. The information processor hardware driver is to efficiently handle a hardware resource in said information processor and configured by a driver program and driver data, and the driver program includes totally one or more tasks and subroutines and being to be utilized in function according to task execution or subroutine call from said script language interpreter. The driver data being a set of data to be handled by said driver program, and the man-machine interface driver is to efficiently deliver said electrical information from said man-machine interface to said script language interpreter and includes totally one or more tasks and subroutines, and utilized in function according to task execution or a subroutine call from said script language interpreter. The script language interpreter is to sequentially interrupt a script

language source code to produce and execute an object code interpretable by said information processor, and the application software contents portion is configured by a script language source code and application software contents data. Furthermore, the script language source code is a program for a particular process to achieve an objective of said present information processing apparatus, and the application software contents data is a set of data to be handled by said script language source code or said script language interpreter. The information processor is to perform an operation process based on an electrical signal from said man-machine interface and software stored in the semiconductor memory, and producing image information and sound information.

Accordingly, at least one of the essential features of the present invention is a "said information processor hardware driver being to efficiently handle hardware resource in said information processor and configured by a driver program and driver data." As such, the present invention results in the advantage of reducing the size and costs of an information processing apparatus.

It is respectfully submitted that the prior art fails to disclose or suggest the elements of the Applicants' invention as set forth in claims 1-4 and 7-8, and therefore fails to provide the advantages that are provided by the present application.

Kikuchi discloses a video game system, which is played by a game player to play a video game, typically a golf game, comprising a game machine assembly and a recording medium 30 which stores game program data. The game machine assembly of Kikuchi comprises a CPU 1, a bus 2 connected to the CPU 1 and comprising an

address bus, a data bus, and a control bus, a graphic data generating processor 3 connected to the CPU 1, an interface 4 connected to the bus 2, a main memory 5 connected to the bus 2, a read-only memory (ROM) 6 connected to the bus 2, an expander 7 connected to the bus 2, a parallel port 8 connected to the bus 2, a serial port 9 connected to the bus 2, a graphic processor 10 connected to the bus 2, a buffer 11 connected to the graphic processor 10, a television monitor 12 connected to the graphic processor 10, an audio processor 13 connected to the bus 2, a buffer 14 connected to the audio processor 13, an amplifier 15 connected to the audio processor 13, a speaker 16 connected to the amplifier 15, a decoder 17 connected to the bus 2, a buffer 18 connected to the decoder 17, a recording medium driver 19 connected to the decoder 17, an interface 20 connected to the bus 2, a memory 21 connected to the interface 20, and a controller 22 connected to the interface 20. The ROM 6 stores game program data as an operating system for the video game system.

Applicants respectfully submit that each and every element recited within claims 1 and 3 is neither disclosed nor suggested by Kikuchi. In particular, Applicants submit that the information processing apparatus as recited in the present application is clearly distinct from that which is illustrated by the cited prior art. Specifically, it is submitted that the cited prior art fails to disclose or suggest at least the limiting elements of "said semiconductor memory storing software for driving said information processor" and "said information processor hardware driver being to efficiently handle hardware resource in said information processor and configured by a driver program and driver data."

According to the Office Action, Examiner appears to read the controller 22 and the interface 4, the ROM 6, and the CPU 1 of Kikuchi, on the man-machine interface, the semiconductor memory, and the information processor of the claimed invention, respectively. (See page 5 of the Office Action.)

However, Applicants respectfully traverse the Examiner's interpretation of Kikuchi since ROM 6 of Kikuchi is neither comparable nor analogous to the semiconductor memory as recited in claims 1 and 3 of the present application. The semiconductor memory of the present invention stores software for driving the information processor. In fact, the semiconductor memory of the present invention includes, inter alia, information processor hardware driver and man-machine interface driver. In contrast, Kikuchi merely disclose a ROM 6 that stores game program data as an operating system for the video game system, only. Kikuchi is silent about ROM 6 storing other contents. In fact, the Examiner noted that "ROM 6 stores the operating system used to direct CPU 1 and administer resources and interrupt control" only. (See page 5, last line to page 6, line 1 of the Office Action.)

Furthermore, the Examiner appears to take the position that "Kikuchi inherently uses an 'information processor hardware driver' as the information processor (which the examiner equates to the CPU 1 of Kikuchi...) requires the use of some stored executable code to read and interpret the input from controller 22 or interface 4 ..." (See page 6, lines 9-12 of the Office Action.)

Applicants respectfully traverse this position and submit that Kikuchi fails to disclose or suggest "said information processor hardware driver" of the present

invention. It is submitted that the "information processor hardware driver" as recited in the claims does not perform interpretation of inputs from input devices such as a controller, mouse and etc. or from controller 22 or interface 4. Rather, the "information processor hardware driver" of the present invention controls, with efficiency, the hardware within the information processor such as a graphic processor, a sound processor and etc.

Moreover, Applicants submit that the "information processor hardware driver" of the present invention is neither comparable nor analogous to the CPU 1 of Kikuchi, which controls image processing, audio processing, and performs a number of functions in Fig. 2, including "Graphic command issuing means 1g . . .". Kikuchi shows that the CPU 1 merely controls the hardware such as a graphic processor 10, an audio processor 13 and etc., and but does not efficiently handle hardware resource in the information processor and configured by a driver program and driver data, where the driver program includes totally one or more tasks and subroutines, and is to be utilized in function according to task execution or a subroutine call from said application software engine.

Given the above, Applicants submit that Kikuchi fails to disclose or suggest each and every element recited in claims 1 and 3 of the present application, and therefore claims 1 and 3 are allowable.

As claims 2, 7 depend from claim 1, and claims 4, 8 depend from claim 3, Applicants submit that each of these claims incorporates the patentable aspects therein,

and are therefore allowable for at least the reasons set forth above with respect to the independent claims.

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kikuchi in view of The Golden Tee Golf Video game.

As claim 5 depends from claim 1, and claim 6 depends from claim 3, Applicants submit that each of these claims incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claims.

In view of the above, Applicants respectfully submit that each of claims 1-8 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicants also submit that the subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 1-8 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300 referencing Attorney Docket No. 100341-09013.

Respectfully submitted,



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Enclosures: Petition for Extension of Time (3 months)
Notice of Appeal